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REC'D 03 MAR 2004

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## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>SONU/P29256PC</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/GB 03/04153</b>	International filing date (day/month/year) <b>22/09/2003</b>	(Earliest) Priority Date (day/month/year) <b>21/09/2002</b>
Applicant <b>SONOPTIX LIMITED</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

## 1. Basis of the report

- a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:

☐ contained in the international application in written form.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority in written form.

☐ furnished subsequently to this Authority in computer readable form.

☐ the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

☐ the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

2. ☐ Certain claims were found unsearchable (See Box I).

3. ☐ Unity of invention is lacking (see Box II).

## 4. With regard to the title,

☐ the text is approved as submitted by the applicant.

☒ the text has been established by this Authority to read as follows:

**BIOCHEMICAL SENSOR WITH THERMOELASTIC PROBES**

## 5. With regard to the abstract,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

## 6. The figure of the drawings to be published with the abstract is Figure No.

☒ as suggested by the applicant.

☐ because the applicant failed to suggest a figure.

☐ because this figure better characterizes the invention.

2  
☐ None of the figures.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/GB 03/04153

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

The thermoelastic response of certain materials to an incident electromagnetic excitation beam is highly sensitive to physical conditions existing at the surface of the material. Probe structures carrying probe materials are used as sensors in the analysis and investigation of bio-chemical molecules. Each probe structure is adapted to undergo a thermoelastic response when excited by temporally varying electromagnetic radiation, characteristics of the thermoelastic response being a function of physical properties of material binding to the surface of the probe structure. An electromagnetic excitation means directs electromagnetic energy at a selected one of the probe structures in order to elicit the excitation response. A detection means determines change in excitation response of the probe structures resulting from the binding of molecules thereto.

# INTERNATIONAL SEARCH REPORT

PCT/GB 03/04153

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 G01N21/17

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 G01N C12Q

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, WPI Data, EPO-Internal, INSPEC, COMPENDEX, BIOSIS

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 03 042669 A (BATTELLE MEMORIAL INSTITUTE) 22 May 2003 (2003-05-22)	1-7, 9-13, 15-17, 19-31, 34,36, 37,39, 41,42, 44,46, 49,50,55
	page 8, line 8 -page 11, line 10; figures 2,3	
X	EP 0 369 176 A (HITACHI INSTRUMENTS ENG ;HITACHI LTD (JP)) 23 May 1990 (1990-05-23) column 5, line 39 -column 6, line 42; figure 1	1,2,7, 11-13,15
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

### \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

24 February 2004

Date of mailing of the international search report

04/03/2004

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# INTERNATIONAL SEARCH REPORT

PCT/GB 03/04153

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 679 946 A (OPSAL JON ET AL) 14 July 1987 (1987-07-14) figure 2 -----	3,35
A	US 4 513 384 A (ROSENCWAIG ALLAN) 23 April 1985 (1985-04-23) figure 4 -----	3,18,31

## INTERNATIONAL SEARCH REPORT

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 03042669	A	22-05-2003	US 2003090663 A1 WO 03042669 A1	15-05-2003 22-05-2003
EP 0369176	A	23-05-1990	JP 2108968 A CA 2000817 A1 EP 0369176 A2	20-04-1990 19-04-1990 23-05-1990
US 4679946	A	14-07-1987	DE 3579497 D1 EP 0163466 A2 JP 1948624 C JP 6084942 B JP 60256038 A	11-10-1990 04-12-1985 10-07-1995 26-10-1994 17-12-1985
US 4513384	A	23-04-1985	DE 3367460 D1 DE 97473 T1 EP 0097473 A1 JP 1690273 C JP 3058443 B JP 59085908 A	11-12-1986 27-09-1984 04-01-1984 27-08-1992 05-09-1991 18-05-1984

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